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**REMARKS****I. INTRODUCTION**

Claims 1-10 have been amended. No new matter has been added. Thus, claims 1-10 are pending in the present application. In view of the above amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

**II. THE FORMATTING OBJECTION SHOULD BE WITHDRAWN**

The disclosure stands objected to by the Examiner due to the specification not being properly arranged or labeled. (See 03/19/08 Office Action, p. 2-3). Applicant respectfully traverses this objection. Subject headings (i.e., titling) are not statutorily required for filing a non-provisional patent application under 35 U.S.C. § 111(a), but per 37 C.F.R. 1.51(d) are only guidelines that are suggested for an applicant's use. Furthermore, the Office has stated that it will not require conformance with the format set forth in 37 C.F.R. 1.77. (See *Miscellaneous Changes in Patent Practice*, Response to comments 17 and 18 (Official Gazette, August 13, 1996) [Docket No.: 950620162-6014-02] RIN 0651-AA75 ("Section 1.77 is permissive rather than mandatory. ...[T]he Office will not require any application to comply with the format set forth in 1.77")). Accordingly, Applicants respectfully submit that this objection to the specification should be withdrawn.

**III. THE CLAIM OBJECTIONS SHOULD BE WITHDRAWN**

Claims 2-8 have been amended to recite "The method." Thus, Applicant respectfully submits that the claim objections should be withdrawn.

**IV. THE DRAWING OBJECTIONS SHOULD BE WITHDRAWN**

The drawings are objected to under 37 CFR 1.83(a) for failing to show the features of claim 10, "X-ray apparatus with an adjustable diaphragm arrangement in the beam path."

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Applicant respectfully disagrees. For example, Figure 1 illustrates an X-ray apparatus, specifically a flat dynamic X-ray detector (FDXD), labeled 13. Additionally, Figure 1 also illustrates an example of an adjustable diaphragm arrangement in the beam path, specifically a collimator, labeled 12. Thus, Applicant respectfully submits that the drawing objections should be withdrawn.

V. **THE 35 U.S.C. § 102(b) REJECTIONS SHOULD BE WITHDRAWN**

Claims 1, 4, 5 and 9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,355,420 to Chan (hereinafter "Chan"). (See 03/19/08 Office Action, p. 5-7).

Claim 1 recites, "A method of operating an imaging device with a two-dimensional field of image sensors as well as an evaluation unit which is capable of reading out and processing the pixel signals, representing output signals of image sensors combined by a binning operation, at a maximum rate, of no more than  $G_{\max}$ , in which method at least one parameter is preset in order to define a sub-region of the field, any remaining parameters for defining the sub-region as well as a binning factor  $b$  and an imaging rate  $f$  are defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region." The Examiner asserts that the recitation of claim 1 is disclosed in Chan at column 36, lines 40 through column 37, lines 17. (See 03/19/08 Office Action p. 5-6). Applicant respectfully disagrees.

Chan describes a method for analyzing polymers. (See Chan Abstract). Additionally, Chan utilizes an intensity imaging technique using a CCD or ICCD camera to capture intensity signals. (See Chan col. 36, ll. 38-40). Chan teaches that the CCD contains light sensitive elements called pixels that can hold electronic charges generated by photon interactions. (See Chan, col. 36, ll. 45-47). The Examiner states that "the imaging rate  $f$ " is equivalent to "16 times the rate of Col 37 Lines 14." (See 03/19/08 Office Action p. 5). Chan states, "During binning, the CCD operates at reduced resolution for increased dynamic range and a **higher frame rate.**" Thus, based upon the disclosure in Chan and the Examiner's assertion, "rate," within Col 36 Lines 40 – through Col 37 Lines 17, is the frame rate.

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The Examiner asserts that Chan teaches the recited “an evaluation unit which is capable of reading out and processing the pixel signals ... at a maximum rate, of no more than  $G_{\max}$ .” (See 03/19/08 Office Action p. 5). However, as described above, the Examiner has stated that the “rate,” as disclosed in Chan, is the frame rate and not a maximum processing rate of an evaluation unit ( $G_{\max}$ ). There is no teaching or suggestion in Chan of a maximum processing rate.

Furthermore, Chan does not state any maximum rate, including a maximum frame rate; Chan simply states a possible frame rate, “a 1024x1024 pixel CCD may be read at a **frame rate** of 100 frames/s.” (See Chan col. 37, ll. 3-5). Additionally, a “higher frame rate of 16 times the frame rate of 100 frames /second” would indicate that based upon the introduction of a binning factor a higher frame rate will result and different frame rates are possible. Once again, this neither teaches nor suggests a maximum processing rate.

The Examiner further states that “16 times the rate at Col 37 Lines 14” describes “an evaluation unit which is capable of reading out and processing the pixel signals ... at a maximum rate, of no more than  $G_{\max}$ .” (See 03/19/08 Office Action p. 5). However, Chan in Col 37 Lines 14 clearly refers to a **frame rate** that is read-out at 16 times faster, not, “an evaluation unit which is capable of reading out and processing the pixel signals ... at a maximum rate, of no more than  $G_{\max}$ ” as recited in claim 1.

The Examiner additionally asserts that Chan teaches that “a binning factor  $b$  and an imaging rate  $f$  are defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region.” (See 03/19/08 Office Action p. 5-6). Chan states, “there are two options that CCD cameras usually employ to modify images. These are subarray readout and binning.” (See Chan col. 36, ll. 61-63). However, Chan does not disclose combining the two options of subarray and binning and the examples within Chan illustrates this fact. Chan first states, “for instance a 100x100 pixel in a 1024x1024 pixel CCD may be read at a frame rate of 100 frames/s at a pixel read frequency of 1 MHZ.” (See Chan col. 37, ll. 2-5). Additionally, Chan separately states “for example, a

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1024x1024 pixel CCD binned 4x4 yields a 256x256 image which has large pixels that are effectively 16 times larger than the unbinned version.” (See Chan col. 37, ll. 11-14). Thus, Chan never teaches that the techniques of subarray readout and binning should be combined. In contrast, claim 1 recites a method including “any remaining parameters *for defining the sub-region as well as a binning factor b* and an imaging rate *f* are defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region.” Clearly, the method of claim 1 includes a combination of binning and defining a sub-region which is never taught or suggested by Chan.

Accordingly, Chan neither teaches nor suggests “an evaluation unit which is capable of reading out and processing the pixel signals ... at a maximum rate, of no more than  $G_{\max}$ ” or “any remaining parameters for defining the sub-region as well as a binning factor *b* and an imaging rate *f* are defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region” as recited in claim 1. Thus, Applicant respectfully submits that claim 1 is patentable over Chan. Because claims 4 and 5 depend from, and therefore include all the limitations of claim 1, it is respectfully submitted that these claims are also allowable for at least the same reasons given above with respect to claim 1.

Independent claim 9 recites, “An imaging device which includes a two-dimensional field of image sensors as well as an evaluation unit which is capable of reading out and processing the pixel signals, representing output signals of image sensors combined by a binning operation, at a maximum rate, of no more than  $G_{\max}$ , the imaging device being arranged to enable the presetting of at least one parameter in order to define a sub-region of the field, to define any remaining parameters for defining the sub-region as well as a binning factor *b* and an imaging rate *f* in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region.” Thus, Applicant respectfully submits that claim 9 is allowable for at least the same reasons given above with respect to claim 1.

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**VI. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN**

Claims 2, 3 and 10 stand rejected under 35 U.S.C. § 103(a) as being anticipated by Chan in view of EP Patent Application No. 1089555A1 to Hoffman et al. (hereinafter "Hoffman"). (See 03/19/08 Office Action, p. 7-9). Applicant respectfully submits that claims 1 and 9 are patentable over Chan either alone or in combination with Hoffman. Thus, because claims 2-3 and 10 depend from, and therefore include all the limitations of claims 1 and 9 respectively, it is respectfully submitted that these claims are also allowable for at least the same reasons given above with respect to claims 1 and 9.

Claims 6-8 stand rejected under 35 U.S.C. § 103(a) as being anticipated by Chan in view of U.S. Patent No. 6,854,885 to Wischmann et al. (hereinafter "Wischmann"). (See 03/19/08 Office Action, p. 5-7). Applicant respectfully submits that claim 1 is patentable over Chan either alone or in combination with Wischmann. Thus, because claims 6-8 depend from, and therefore include all the limitations of claim 1, it is respectfully submitted that these claims are also allowable for at least the same reasons given above with respect to claim 1.


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CONCLUSION

In light of the foregoing, Applicant respectfully submits that all of the now pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

Dated: June 19, 2008

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